Pressure Temperature Charts

°F	°C	R-438A
-40	-40.0	1.7
-35	-37.2	3.9
-30	-34.4	6.4
-25	-31.7	9.1
-20	-28.9	12.0
-15	-26.1	15.3
-10	-23.3	18.8
-5	-20.6	22.7
0	-17.8	26.8
5	-15.0	31.4
10	-12.2	36.3
15	-9.4	41.6
20	-6.7	47.2
25	-3.9	53.4
30	-1.1	59.9
35	1.7	66.9
40	4.4	74.5
45	7.2	82.5
50	10.0	91.0
55	12.8	100.1

°F	°C	R-438A
60	15.6	109.8
65	18.3	120.1
70	21.1	131.0
75	23.9	142.5
80	26.7	154.7
85	29.4	167.6
90	32.2	181.2
95	35.0	195.6
100	37.8	210.7
105	40.6	226.6
110	43.3	243.3
115	46.1	260.8
120	48.9	279.2
125	51.7	298.5
130	54.4	318.7
135	57.2	339.8
140	60.0	361.9
145	62.8	385.0
150	65.6	409.0

Vapor Pressure in PSIG

Refrigerant Boiling Point

Refrigerant:	Components:	BP (0 PSIG):
R-438A	R-125 (45%, **Pentafluoroethane**) R-134a (44.2%, **1,1,1,2-Tetrafluoroethane**) R-32 (8.5%, **Difluoromethane**) R-600 (1.7%, **n-Butane**) R-601a (0.6%, **Isopentane**)	Liquid → -44.2°F Vapor → -33.1°F

Liquid Density

Refrigerant:	Liquid Density:	-80°F	-40°F	0°F	40°F	80°F	120°F
R-438A	lb/cu. ft.	90.6	86.4	81.9	76.9	71.1	64.0
	lb/gal.	12.1	11.6	10.9	10.3	9.5	8.6

Physical Properties

	R-438A
Environmental Classification	HFC
Molecular Weight	99.1 g/mol
Boiling Point (1atm, °F)	Liquid → -44.2 Vapor → -33.1
Critical Pressure (psia)	606.0
Critical Temperature (°F)	182.9
Critical Density (lb./ft^ 3)	31.7
Vapor Density (bp, lb./ft^ 3)	0.3
Liquid Heat of Vaporization (bp, BTU/lb.)	62.8
Ozone Depletion Potential (CFC 11 - 1.0)	0
Global Warming Potential (CO2 = 1.0)	2059
ASHRAE Standard 34 Safety Rating	A1

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